

WE CLAIM:

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An implant for intervertebral fusion between opposing vertebrae, said implant comprising:

- an implant body having a first end and a second end spaced apart by a longitudinal axis of the implant;
- said implant body comprising a first transverse member having a first bearing surface and a second transverse member having a second bearing surface; and
- said first and second transverse members are spaced apart by a central support member.

2. An implant according to claim 1 wherein said first and second bearing surfaces are curved.
3. An implant according to claim 2 wherein said first and second bearing surfaces include portions of a helical thread pattern.
4. An implant according to claim 1 wherein said central support member extends from said first end to said second end of said implant.
5. An implant according to claim 4 wherein said central support member includes at least one opening therethrough.
6. An implant according to claim 1 wherein said first and second transverse members each include an opening.

- a first bearing surface having a first and second thread segment with a first rigid support maintaining said first and second thread segments in spaced apart relationship;
- a second bearing surface having a first and second thread segment with a second rigid support maintaining said first and second thread segments in space apart relationship; and
- a central support member for maintaining said first and second threaded surfaces in spaced apart alignment.

15. An implant according to claim 14 wherein said central support member is in a plane perpendicular to a plane defined by a selected one of said first and second bearing surfaces.
16. An implant according to claim 14 wherein said first and second bearing surfaces converge towards one another from said first end to said second end of said implant body.
17. An implant according to claim 14 wherein said first and second thread segments are substantially parallel from said first end to said second end of said implant body.
18. An implant according to claim 14 wherein said first and second thread segments define a helical thread pattern.
19. An implant according to claim 14 wherein said central support member comprises a plurality of columns.

20. An implant according to claim 14 wherein said first and second rigid supports each comprise a plurality of trusses.
21. An implant according to claim 14 wherein said implant is manufactured from titanium.
22. An implant according to claim 14 wherein said implant is manufactured from porous titanium.
23. An implant according to claim 14 wherein said implant is manufactured from bone.
24. An implant for intervertebral fusion between opposing first and second vertebrae, said implant comprising:
 - an implant body having a leading end and a trailing end spaced apart by a longitudinal dimension of the implant; and
 - a cross section through said longitudinal dimension of said implant body having a substantially "I" shaped configuration.
25. An implant according to claim 24 wherein said "I" shaped configuration comprises a first bearing surface diametrically opposite to a second bearing surface, said first and second bearing surfaces maintained in spaced apart alignment by a central support beam.
26. An implant according to claim 25 wherein said first and second bearing surfaces are each arched.

27. An implant according to claim 26 wherein said first and second bearing surfaces each include a portion of a helical thread pattern extending from said first end to said second end of said implant body.
28. An implant according to claim 27 further comprising a bone support matrix.
29. An implant according to claim 28 wherein said bone support matrix comprises a portion of a helical thread pattern that is complimentary to said portion of said helical thread pattern of said first and second bearing surfaces.
30. An implant according to claim 28 wherein said bone support matrix is resorbable.
31. An implant according to claim 25 wherein said first and second bearing surfaces each include a pattern for anchoring to opposing first and second vertebrae.
32. A kit for fusing opposing a first and second vertebral bodies of a human spine, said kit comprising an implant, said implant comprising:
 - an implant body having:
 - a leading end and a trailing end spaced apart by a longitudinal axis of the implant;
 - a first bearing surface for contact with said first vertebral body;
 - a second bearing surface for contact with said second vertebral body;

- a central support member for maintaining said first and second bearing surfaces in spaced apart relationship and said centrally support member being oriented substantially perpendicular to said first and second bearing surfaces; and
- an implant insertion tool.

33. A kit according to claim 32 further comprising a bone support matrix.

34. A kit according to claim 32 further comprising a distraction spacer.

35. A method for stabilizing opposing vertebral bodies, the method comprising:

- inserting an implant into a bore formed between said opposing vertebral bodies wherein said implant comprises an implant body having a cross section substantially configured in the shape of an "I."

add c2

add E4

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